



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,437	06/14/2005	Christof Gross	095309.55678US	4377

23911 7590 08/23/2006

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

DESTA, ELIAS

ART UNIT PAPER NUMBER

2857

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/517,437

Applicant(s)

GROSS ET AL.

Examiner

Elias Desta

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/10/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 14-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/10/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Drawing

1. The drawing is objected to because of the following minor informalities:

- Figs. 1 and 3: label the boxes 2, 2' and 18 as to function.

Abstract

2. The abstract is objected to because of the following minor informality. Delete "(Figure 1)" reference from the abstract page.

Claim rejection - 35 U.S.C. 112

3. Claims 20-24 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

Regarding claim 20, the phrase "at least substantially without quiescent current [leakage current]" renders the claim indefinite because it is unclear whether the apparatus claimed has any measurable amount of "leakage current" that would render a significant error in the system performance. Claims 21-24 are also rejected because they depend on a rejected base claim 20.

Claim rejection - 35 U.S.C. 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 13 and 19 are rejected under 35 U.S.C. 102(a) as anticipated by Dunn (U.S. Patent 6,321,707).

In reference to claim 13: Dunn teaches an apparatus for supplying voltage to a plurality of loads in vehicle having a vehicle power supply system (see Dunn, Fig. 1, first and second battery) which includes an energy store that is connected in a starter circuit (see Dunn, Fig. 1, Starter (140) with first battery and second battery, units 110 and 120 respectively) element to a starter for starting an engine, and a second energy store that is connected in a load circuit element to load components (see Dunn, Figs. 2 and 3, first battery unit). The apparatus comprising:

- A source connected to a control module (see Dunn, Fig. 1, secondary battery);
- Coupling elements to individual remaining systems (see Dunn, solenoid elements, unit 180);

Art Unit: 2857

- A controller (necessarily includes a data processing unit), and a coupling element that is operable to connect the starter circuit element to the load circuit element (see Dunn, Fig. 1, the configuration); and
- A measurement device for providing data from which the data processing unit can determine a state of the respective energy stores in the starter and load circuit elements (see Dunn, column 6, lines 49-63), and data concerning current flowing through and voltage across a safety related load (see Dunn, column 5, lines 40-54), whereby it would be inherent that the data processing unit can continuously monitor a state of each respective energy store for the starter and load circuit elements as well as the safety related loads, and the paths to the safety related loads, and the data processing unit.

With regard to claim 19: Dunn further teaches that the data processing unit, which is inherent in the controller arrangement, determines the data supplied to it an amount of energy or power which is required for the respective safety-relevant load (such as solenoid and diodes) and ensures that

Art Unit: 2857

only the amount of energy specified is supplied to the safety relevant load (see Dunn, column 5, lines 40-46).

Allowable Subject Matter

6. Claims 14-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Citation of pertinent prior art:

- Urlass et al. (U.S. Patent 6,765,312) teaches a dual battery system that includes a starter battery and a battery of the vehicles electric system.
- Hiramatsu et al. (U.S. Patent 5,182,702) teaches an inverter device for converting an AC line voltage into a high frequency output AC voltage using simple control scheme.
- MacMinn et al. (IEEE Article, 'A Very High Speed Switched-Reluctance Starter-Generator for Aircraft Engine Application') teaches an overview of overall system configuration and the design of the switched reluctance motor and its solid-state power converter.

Art Unit: 2857

- Dougherty et al. (U.S. Patent 5,488,283) teaches vehicle battery system providing battery back up and opportunity charging.
- Frister et al. (IEEE Article, 'New Concepts for Vehicle Electrical System') teaches an apparatus for supplying voltage to a plurality of loads in a vehicle having a vehicle power supply system and a starter.
- Sato et al. (IEEE Article, 'Contact-less Energy Transmission to Mobile Loads by CLIPS-Test Driving of an EV with Starter Batteries') teaches starting and driving method of contact-less power transmission to electric vehicle.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Th (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

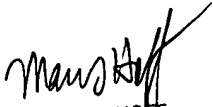
Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elias Desta
Examiner
Art Unit 2857

- E.d.

August 17, 2006


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800